pally on zooplankton (Cladocera). Older ones complete their diet with aquatic vegetation (filamentous algae) and different kinds of aquatic macro-invertebrates. In the « Zegge » the diet of young bullheads consists basically of zooplankton (Cladocera, Copepoda and Ostracoda) and Chironomidae. Older ones feed basically on Chironomidae and less on zooplankton. Only on the « Zegge », bullheads larger than 19 cm eat small amounts of fish.

PRÉSENCE DE CRISTAUX D'ACIDE URIQUE DANS LES KYSTES DES GRÉGARINES (SPOROZOA) PARASITES DU SPATANGUE *ECHINOCARDIUM CORDATUM* (ECHINODERMATA)

par

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Le coelome du spatangue fouisseur *Echinocardium cordatum* contient les kystes de cinq espèces de grégarines. Tous renferment, outre les spores du parasite, un important amas de cristaux. L'analyse de ces cristaux à la microsonde électronique a démontré leur nature organique. Les raies de Debye-Scherrer obtenues après diffraction de rayons X sur ces cristaux correspondent à celles de l'acide urique.

Nous interprétons la présence d'acide urique dans les kystes grégariniens comme une accumulation de déchets azotés sous une forme inoffensive pour le parasite. Ce type de produit d'excrétion semble particulier aux grégarines de spatangues.

POPULATION GENETICS OF THE OKAPI (*OKAPIA JOHNSTONI*) IN CAPTIVITY

by

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In a small population, every new generation will contain only a small sample of the genes in the parent generation. This causes random change of gene frequencies, which is called random or genetic drift. Random drift leads to a loss of genetic diversity, on individual level (increasing homozygosity) as wel as on population level (loss of genes).

Increasing homozygosity will almost always decrease fertility and viability by expression of deleterious, recessive genes. Loss of genetic variation on population level will cause a decrease of the adaptive potential of the population.

The okapi (*Okapia johnstoni*) population in captivity is a small, nearly isolated population. Some of the living animals belong already to the fourth captive bred generation. The random drift theory predicts a considerable loss of genetic diversity in the course of the generations.

A preliminary study of the genetic structure of this population showed that equalizing founder representation and family sizes would strongly decrease the rate of loss of genetic diversity.

An analysis of the effect of inbreeding on survival of the young showed that young okapis with an inbreedingcoefficient of 0.25 or higher, have a statistically significant ($p < 0.02$) lower survival in the first year of their life.